

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF SOUTH CAROLINA  
ROCK HILL DIVISION

Bobbie M. Sedberry and John C. Sedberry,	)	C.A. No. 0:09-53-CMC
	)	
Plaintiffs,	)	
	)	
vs.	)	<b>OPINION AND ORDER</b>
	)	<b>ON MOTIONS FOR</b>
	)	<b>SUMMARY JUDGMENT</b>
DonB Aircraft International, Inc. and	)	<b>AND TO EXCLUDE</b>
Donald R. Bennett,	)	<b>EXPERT TESTIMONY</b>
	)	
Defendants.	)	
_____	)	

Through this action, Plaintiffs, Bobbie M. Sedberry and John C. Sedberry (collectively “the Sedberrys”), seek recovery for personal injuries and property damage suffered when the Sedberrys’ privately-owned aircraft suffered an engine failure which forced an emergency landing. The Sedberrys allege that the engine failure was the result of improper repairs performed by Defendants, DonB Aircraft International, Inc. and Donald R. Bennett (collectively “Defendants”). Specifically, the Sedberrys allege that Defendants failed to properly install the bolt which held the crankshaft-gear assembly in place.

The matter is presently before the court on Defendants’ related motions to exclude expert testimony and for summary judgment. The motion to exclude expert testimony is founded, in large measure, on the expert witnesses’ reliance on materials relevant to the aircraft’s engine as originally manufactured. Defendants argue that this reliance is unreasonable, and renders the expert opinions inadmissible, because the engine was modified after manufacture (and prior to Defendants’ repairs) to increase both its compression and horsepower. Defendants’ motion for summary judgment, in turn, rests primarily on the presumed absence of expert witness testimony necessary to establish elements of the Sedberrys’ claims.

For the reasons set forth below, the court denies Defendants' motion to exclude Plaintiff's expert witnesses' testimony except in limited respects. This ruling requires denial of the motion for summary judgment to the extent it relies on an absence of expert testimony, although the motion for summary judgment is also granted in part. Nothing in this order precludes renewal of the motion for exclusion or limitation of expert testimony at the time of trial at which point the court may conduct voir dire of the expert witnesses. Defendants' motions are, therefore, granted in part and denied in part.

### **STANDARD**

**Expert Witness Standard.** Rule 702 of the Federal Rules of Evidence allows "a witness qualified as an expert by knowledge, skill, experience, training, or education" to provide opinion testimony regarding scientific, technical, or other specialized subject matters, "if (1) the testimony is based upon sufficient facts and data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." Fed. R. Evid. 702. In applying this rule, "the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but also reliable." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589 (1993).

As explained in *Daubert*, the court may consider the following factors in deciding whether proffered scientific expert testimony is admissible: (1) whether the theories and opinions offered can be and have been tested; (2) whether the theory has been subject to peer review and publication; (3) the known or potential rate of error associated with a technique; and (4) whether a technique is generally accepted by the scientific (or technical) community. *Id.* at 593-94. These factors are not, however exclusive or always applicable to a given expert's proffered test. *See Kumho Tire Co. v.*

*Carmichael*, 526 U.S. 137, 150 (1999) (“[*Daubert*] made clear that its list of factors was meant to be helpful, not definitive. Indeed, those factors do not all necessarily apply even in every instance in which the reliability of scientific testimony is challenged.”).

The gatekeeping function explained in *Daubert* is equally applicable to testimony offered by non-scientific experts. *Kumho*, 526 U.S. at 147-49. The factors applied must, however, be tailored to the particular area of expertise and nature of the opinions offered. *Id.* at 150 (agreeing that “[t]he factors identified in *Daubert* may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert’s particular expertise, and the subject of his testimony”) (internal quotation marks omitted).

As the Court explained in *Kumho*, “Rule 702 grants the district judge the discretionary authority, reviewable for its abuse, to determine reliability *in light of the particular facts and circumstances of the particular case.*” *Id.* at 158 (emphasis added). The Fourth Circuit has similarly noted that “[i]n making its initial determination of whether proffered testimony is sufficiently reliable, the [trial] court has broad latitude to consider whatever factors bearing on validity that the court finds to be useful; the particular factors will depend upon the unique circumstances of the expert testimony involved.” *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 261 (4th Cir. 1999).

The court further explained as follows:

In evaluating the admissibility of expert testimony, the court should be conscious of two guiding, and sometimes competing, principles. On the one hand, the court should be mindful that Rule 702 was intended to liberalize the introduction of relevant expert evidence. . . . And, the court need not determine that the expert testimony a litigant seeks to offer into evidence is irrefutable or certainly correct. . . . As with all other admissible evidence, expert testimony is subject to being tested by [v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof. . . . On the other hand, the court must recognize that due to the difficulty of evaluating their testimony, expert witnesses have the potential to be both powerful and quite misleading. . . . And, given the potential

persuasiveness of expert testimony, proffered evidence that has a greater potential to mislead than to enlighten should be excluded.

*Westberry*, 178 F.3d at 261 (internal quotation marks, alterations in original, and citations omitted).

**Summary Judgment Standard.** Summary judgment is appropriate “if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c). It is well established that summary judgment should be granted “only when it is clear that there is no dispute concerning either the facts of the controversy or the inferences to be drawn from those facts.” *Pulliam Inv. Co. v. Cameo Properties*, 810 F.2d 1282, 1286 (4th Cir. 1987).

The party moving for summary judgment has the burden of showing the absence of a genuine issue of material fact, and the court must view the evidence before it and the inferences to be drawn therefrom in the light most favorable to the nonmoving party. *United States v. Diebold, Inc.*, 369 U.S. 654, 655 (1962). When the nonmoving party has the ultimate burden of proof on an issue, the moving party must identify the parts of the record that demonstrate the nonmoving party lacks sufficient evidence. The nonmoving party must then go beyond the pleadings and designate “specific facts showing that there is a genuine issue for trial.” Fed. R. Civ. P. 56(e); *see also Celotex Corp. v. Catrett*, 477 U.S. 317 (1986).

A party “cannot create a genuine issue of material fact through mere speculation or the building of one inference upon another.” *Beale v. Hardy*, 769 F.2d 213, 214 (4th Cir. 1985). Therefore, “[m]ere unsupported speculation . . . is not enough to defeat a summary judgment motion.” *Ennis v. National Ass’n of Bus. & Educ. Radio, Inc.*, 53 F.3d 55, 62 (4th Cir. 1995).

## **BACKGROUND**

The engine in the Sedberrys’ airplane is classified as an “experimental” engine. This

classification is required because the engine is a modified version of an engine which is approved by the Federal Aviation Administration (“FAA”). The original, unmodified engine is a Lycoming I0540 engine (“Original Engine”). As modified it is referred to as a Lycon engine or Lycon conversion (“Converted Engine”). The Converted Engine is distinguished from the Original Engine by the inclusion of a second timing hole in the crankshaft-gear and by modification of the pistons. Collectively, these modifications, which were made prior to Defendants’ work on the engine, resulted in increased compression and horsepower.

Before beginning repairs of the Converted Engine, Donald R. Bennett (“Bennett”) researched these modifications by contacting Lycon as well as by speaking to the individual who completed the conversion (the original builder of the airplane). After conducting this research, Bennett completed his repairs relying, in part, on a manual published by Lycoming, the manufacturer of the Original Engine, as well as Lycoming Service Bulletin 475C (“Bulletin 475C”). Bennett did so because the Lycoming manual and Bulletin 475 provided the most directly applicable instructions for repair and assembly of the engine, there being no similar instructions for the engine in its converted form. As between the manual and Bulletin 475C, the latter was the more critical for purposes of this action because it provides specific directions for reassembly of the crankshaft-gear assembly, including instructions relating to installation of the bolt which secures that assembly.

The Converted Engine failed within nine to ten flying hours after Defendants completed work on the engine. It appears to be undisputed that the engine failure was the result of a decoupling of the crankshaft-gear assembly. Whether the bolt or a dowel (which is placed in the timing hole) failed first and what precisely caused the failure(s) are, however, in dispute.

The Sedberrys maintain that the decoupling was the result of Defendants’ failure to properly

reassemble the engine in conformity with Bulletin 475C, most particularly with respect to installation of the bolt which secured the crankshaft-gear assembly. Both of Plaintiffs' experts refer to or rely on Bulletin 475C in offering their opinions. This reference and reliance is central to Defendants' motion to exclude the testimony of these experts and, by extension, Defendants' motion for summary judgment, although Defendants also advance other reasons for exclusion as discussed below.

## **DISCUSSION**

### **I. Expert Testimony of Sammy Bereznak**

Defendants move to exclude the expert testimony of Sammy Bereznak who is offered as an expert in the field of aircraft mechanics. Defendants do not challenge Bereznak's qualifications but, instead, argue that his testimony is not based on theories that have been tested and otherwise fails to meet the reliability requirements of Rule 702 of the Federal Rules of Evidence as explained in *Daubert* and *Kumho*. Defendants' specific challenges to Bereznak's testimony relate to claimed inadequacies in his observation of the tear down of the engine and his reliance on Bulletin 475C.

The alleged inadequacies in Bereznak's observation of the tear down include that (1) he did not take notes, measurements, or photographs during the tear down and (2) he left before the engine tear down was complete. These alleged inadequacies may provide a basis for impeachment of Bereznak's testimony, at least if there is other evidence suggesting they contributed to an error in his analysis, for example, if he missed some significant fact as a result of his "premature" departure or failure to take measurements.<sup>1</sup> His alleged deficiencies are not, however, sufficient to exclude

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<sup>1</sup> Defendants suggest that Bereznak took a somewhat cavalier approach to the tear down, departing as soon as he saw what he believed to be the cause of the accident: the failed crankshaft-gear assembly. In doing so, Bereznak arguably risked missing evidence of some other potential

his testimony based simply on the fact that he might have done or observed more.

Likewise, Bereznak's reliance on Bulletin 475C does not present a deficiency sufficient to preclude introduction of his expert opinion based on the record now before the court. Bereznak acknowledged that the Original Engine to which Bulletin 475C was applicable had been modified. Nonetheless, he opined that the differences between the Original Engine and the Converted Engine were not sufficient to make Bulletin 475C inapplicable to reassembly of the crankshaft-gear assembly. He did not rely simply on unsupported assumptions for this opinion. Instead, he explained that the added compression and horsepower would not add significant additional stress to the bolt because the added pressure would be absorbed in other surface connections.<sup>2</sup> Dkt. No. 28-1 at 21-22 (Bereznak Dep. at 126-27). While this opinion and rationale may be subject to impeachment, the present record does not suggest exclusion is warranted on this basis.<sup>3</sup>

Defendants also argue that Bereznak failed to rule out other potential causes of the accident. As with Defendants' other arguments, this argument rests on the premise that Bulletin 475C is inapplicable to the Converted Engine. For reasons set forth above, the court finds Bereznak's

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cause. There does not, however, appear to be any evidence that there was any other cause, although the parties disagree as to why this assembly failed.

<sup>2</sup> Following the conversion of the engine from a non-experimental Lycoming engine to an experimental Lycon engine, it functioned without incident for a significant number of flying hours. This evidence suggests that the engine itself was not defective as modified. There is, however, no specific evidence as to whether the instructions in Bulletin 475C (specifically those relevant to the bolt at issue in this action) were followed during the original conversion or during any subsequent repairs preceding the repairs at issue in this action. Thus, the mere fact that the Converted Engine previously ran without incident for an extended period of time is not evidence that compliance with Bulletin 475C would have prevented failure of the bolt or that Defendants' repairs were not in conformity with that bulletin.

<sup>3</sup> Though not dispositive, it is of some note that Defendants, after consulting with Lycon and the individual who completed the conversion, concluded that they should rely on instructions in Bulletin 475C in completing the repairs.

testimony adequate to overcome this concern at least at this stage of the proceeding.

## **II. Expert Testimony of Michael E. Stevenson, Ph.D.**

Defendants also move to exclude the expert testimony of Dr. Michael Stevenson, a metallurgist, on three grounds. First, Defendants argue that Dr. Stevenson may not testify as to the standard of care for assembly of the crankshaft-gear assembly because he has no expertise in aircraft mechanics. Second, Defendants argue that Dr. Stevenson may not offer any testimony as to causation because he has relied, in part, on Bulletin 475C which is not directly applicable to the Converted Engine and has failed to adequately account for differences between the Original and Converted Engine as they may have affected the clamping strength of the bolt. Third, Defendants argue that Dr. Stevenson's opinions are so vague that they have a greater potential to confuse than to enlighten the jury.

The Sedberrys concede Defendants' first argument and confirm that they will not offer Dr. Stevenson as an expert in the field of aircraft mechanics. The court, therefore, grants Defendants' motion to exclude Dr. Stevenson's testimony to this extent.<sup>4</sup>

The court does not find Dr. Stevenson's partial reliance on or reference to Bulletin 475C sufficient to require exclusion of his testimony in total, at least in light of the information now before the court. First, various critical aspects of Dr. Stevenson's testimony are not dependent on Bulletin 475C. For example, his report and deposition testimony indicate he will testify as to the condition of the various component parts and his conclusions from that examination. Those conclusions

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<sup>4</sup> Precisely which aspects of Dr. Stevenson's opinion are excluded by this concession is somewhat less clear. The parties shall confer on this point no later than the deadline for filing Fed. R. Civ. P. 26(a)(3) disclosures so that any resulting disputes may be timely raised by motion in limine.

include that the damage he observed “can only be facilitated by an absence of appropriate clamping force in the bolted joint,” and “cannot occur unless the joint clamping force is lost and relative motion in the system can occur[.]” Dkt. No. 27-3 at 16, 18. He also concluded, based on the damage observed, that the damage-causing “relative motion took place prior to the separation of the joint” and “the fatigue fractures observed could not occur unless relative motion between the components . . . existed in the system.” *Id.* at 18.

Dr. Stevenson refers to Bulletin 475C mainly in explaining that the bulletin warns of these risks. He does not, however, appear to rely on the bulletin in reaching the above conclusions. Thus, his mere reference to the bulletin would not preclude these aspects of his opinion even if the court ultimately concluded that reliance on Bulletin 475C was not supported.<sup>5</sup>

Even if Dr. Stevenson did rely on Bulletin 475C, in part, in reaching his conclusions as to the general cause of engine failure, the court would not, on the present record, find that partial reliance sufficient to exclude Dr. Stevenson’s testimony based on differences between the Original and Converted Engines. The reasons for this conclusion are discussed above regarding Bereznak’s testimony. Instead, these are matters which may be used in impeachment of the expert testimony.

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<sup>5</sup> Whether Dr. Stevenson should be allowed to testify to what Bulletin 475C states is a different matter given that the bulletin, to the extent relevant, arguably speaks for itself. However, even assuming he may not testify to the content of the bulletin, his reference to that bulletin does not indicate improper reliance on it.

Whether Dr. Stevenson may go beyond testimony relating to his observations and general causation conclusions (that is, that failure of adequate clamping force led to the engine failure) is a different matter which the court will consider, if necessary, prior to presentation of his testimony at trial. For example, it is not clear that Dr. Stevenson should be allowed to testify to any conclusions based on examination of the log book, given that this may either go beyond his area of expertise or, alternatively, invade the province of the jury. Similarly, the reasons clamping force might have been lost may go beyond his area of expertise, although the court does not make that determination at this point.<sup>6</sup>

Finally, the court does not find Dr. Stevenson's testimony so vague as to require its exclusion. While it is true that Stevenson could not isolate a specific cause of the clamping failure, his testimony (to the extent allowed as noted above) is relevant to limiting and explaining the potential causes. Other testimony, as believed (or discredited) by the jury may supply any missing linkage. Thus, the fact that Stevenson cannot, through his own testimony, pinpoint a precise cause does not preclude introduction of his testimony.<sup>7</sup>

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<sup>6</sup> It is not clear at this point whether Stevenson's non-exclusive listing of potential causes of loss of clamping force was based on his expertise as a metallurgist or crossed over into the area of aircraft mechanics.

<sup>7</sup> For example, Dr. Stevenson testified that he observed a burr on one surface of the assembly which could have caused or contributed to inadequate clamping pressure *if it was present at the time of reassembly*. That he could not state with reasonable certainty whether the burr *was* present at the time of reassembly may preclude him from offering an opinion that this was a cause which contributed to the engine failure. It would not, however, preclude his testimony as to his observation of the part, leaving it to another witness to link that testimony to ultimate causation.

### **III. Summary Judgment Motion**

#### **A. Contract Claim Asserted Against Bennett or Pursued by Bobbie Sedberry**

Plaintiffs concede two aspects of Defendants' motion for summary judgment, both of which relate to who is a proper party to the second, contract-based cause of action. Specifically, Plaintiffs concede that Defendant Bennett is not a party to any contract and, thus, is not properly named as a Defendant in the second cause of action for breach of contract and warranties. Likewise, they concede that Bobbie Sedberry is not a party to any contract and, therefore, has no right to recover under the second, contract-based cause of action.

Defendants' motion for summary judgment is, therefore, granted to the extent of eliminating Plaintiff Bobbie Sedberry and Defendant Donald Bennett as parties to the second cause of action.

#### **B. Reliance on Implied Warranty**

Defendants also move to limit the second cause of action, arguing that North Carolina does not recognize an implied warranty of workmanlike service in the context of oral contracts for services such as those at issue in this action. Defendants' cited authority is not, however, on point, as it only addresses when mixed contracts fall under North Carolina's Uniform Commercial Code (applicable to sale of goods) and when they do not. *See* Dkt No. 29-1 at 7 (citing *Hensley v. Ray's Motor Co. of Forest City*, 580 S.E.2d 721, 724 (N.C. App. 2003) (holding that contract for sale and set up of mobile home was predominately a sale of goods)).<sup>8</sup> In response, Plaintiffs rely on *Matthews v. Davis*, 664 S.E.2d 16 (N.C. App. 2008), in which the court affirmed the trial court's finding that the sea wall at issue in that action "was constructed in an unworkmanlike manner[.]"

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<sup>8</sup> The critical issue in *Hensley* was which statute of limitations applied. The availability of implied warranties was not discussed.

Based on this case, Plaintiffs suggest that North Carolina recognizes an implied warranty in oral contracts for the performance of services. The opinion does not, however, indicate whether the contract at issue was oral or written, neither was the availability of such a warranty the subject of the appellate opinion. Defendants do not address this point in their reply.

The court is, therefore, presented with no direct authority either for or against the proposition that a warranty for workmanlike service may be implied in an oral contract under North Carolina law. Under these circumstances, the court declines to grant summary judgment on this issue and directs the parties to address the availability of this claim in their pretrial briefs.

### **C. Sufficiency of Expert Witness Testimony**

To the extent Defendants' motion for summary judgment is dependent on exclusion of expert witness testimony, the motion fails. Although some portions of Dr. Stevenson's opinion will be excluded, his allowable testimony, together with the testimony of Bereznak, is sufficient to present a genuine issue of material fact as to causation. In this regard, the court notes that it is not necessary for the Sedberrys to establish a single specific cause of the failure of the crankshaft-gear assembly. Instead, they may establish that Defendants are liable by establishing that there are several potential causes of the failure *any of which would be solely attributable to Defendants* and sufficient to support the relevant claim.

### **PRETRIAL SCHEDULE**

Because one or more claims survive the motion for summary judgment, the matter shall proceed to trial under the scheduling order entered November 4, 2009. Dkt. No. 26. The scheduling order is, however, modified as to **jury selection** which is now scheduled for **February 18, 2010**.

## CONCLUSION

For the reasons set forth above, the court grants Defendants' motion to exclude the expert witness testimony of Dr. Michael Stevenson to the extent he may seek to offer opinions as to the standard of care owed by an aircraft mechanic. The motion for exclusion of expert testimony is otherwise denied, subject to renewal at trial.

The court also grants Defendants' motion for summary judgment to the extent it seeks to exclude Bobbie M. Sedberry as a Plaintiff and Donald R. Bennett as a Defendant to the contract-based second cause of action. The motion for summary judgment is otherwise denied.

The matter shall proceed to trial under the schedule set by Dkt. No. 26 as modified above. Counsel are reminded of the requirements to confer as to the scope of Dr. Stevenson's testimony (*supra* n. 4) and to address the availability of the implied warranty claim in their pretrial briefs (*supra* p. 12).

IT IS SO ORDERED.

s/ Cameron McGowan Currie  
CAMERON MCGOWAN CURRIE  
UNITED STATES DISTRICT JUDGE

Columbia, South Carolina  
December 9, 2009